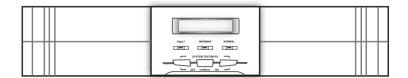
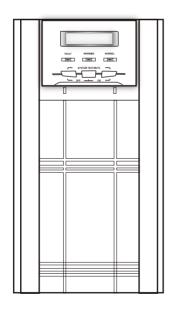
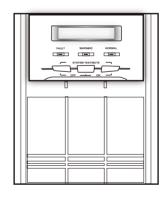
USER'S MANUAL

ON-LINE 1K/2K/3KVA







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1.INTRODUCTION

1.1 General Description

The continuity of electrical power is an essential requirement for critical load operations .The Uninterruptible Power System (UPS) is designed to meet the user's need of present computer, server and the equipment of office automation that make the UPS more compact and less noisy.

To choose the UPS as your equipment protector is a wise investment because it supplies reliable, pure and stable power at affordable price.

1.2 Key features

- 1. Multiple microprocessor and double-conversion design base.
- 2. Wide input range designed to operate under harsh environment.
- 3. High input power factor and DC-start function.
- 4. LED and LCD display for detail status and data; real-time alarm silence.
- 5. Enhanced protections against light, surges, and disturbance etc.
- 6. Remote monitoring with SNMP intelligent slot and RS-232 interface.
- 7. Light weight and compact size, easy to transport and place.

1.3 Important Notices

To be sure that the UPS will be operated correctly, the following items should be noticed:

- 1. Read instructions carefully before operating the UPS.
- 2. UPS power connect instruction should be followed.
- 3. Please don't open the case to prevent danger.
 - 4. If the UPS will be stored for long period, the battery must be charged once every 90 days.
- 5. Retain the load within the rating of UPS to prevent faults.
- 6. Handle unusual events according to the trouble-shooting guide.
- 7. Keep the UPS clean and dry.

2.SAFTY INSTRUCTION

2.1 Transporting

- 1. Disconnect all power cables if necessary.
- 2. Be careful not to damage the UPS while transporting.
- 3. Don't move the UPS upside down.
 - 4. Please transport the UPS system only in the original packaging (to protect against shock and impact).

2.2 Positioning

- 1.Do not put the UPS on rugged or declined surface.
- 2.Do not install the UPS system near water or in damp environments.

- 3.Do not install the UPS system where it would be exposed to direct sunlight or near heat.
- 4.Do not block off ventilation openings in the UPS system's housing and don't leave objects on the top of the UPS.
- 2.Allow a minimum distance of 10 cm in the rear and two sides of the UPS for ventilation.
- 4. Keep the UPS far away from heat emitting sources.
- 6.Do not expose it to corrosive gas.
- 7.Ambient temperature: 0°C 40°C

2.3 Installation

- 1. Connect the UPS system only to an earthed shockproof socket outlet.
- 2. Do not connect domestic appliances such as hair dryers or office equipment which would overload the UPS system (e.g. laser printers) to UPS output sockets.
- 3. Place cables in such a way that no one can step on or trip over them.

2.4 Operation

- 1. Do not disconnect the mains cable on the UPS system or the building wiring socket outlet during operations since this would cancel the protective earthing of the UPS system and of all connected loads.
- 2. The UPS has its own internal power source (batteries). The output terminals may be live even when the UPS is not connected to the AC supply.
- 3. Ensure that no fluids or other foreign objects can enter the UPS system.

2.5 Maintenance and Service

1. Caution - risk of electric shock.

Even after the unit is disconnected from the mains power supply (building wiring socket outlet), components inside the UPS system are still connected to the battery and are still electrically live and dangerous. Before carrying out any kind of servicing and/or maintenance, disconnect the batteries and verify that no current is present.

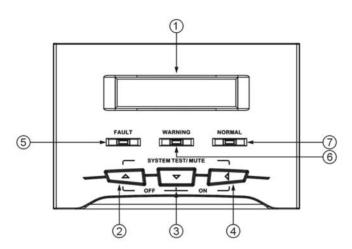
- 2. Only persons adequately familiar with batteries and with the required precautionary measures may exchange batteries and supervise operations. Unauthorised persons must be kept well away from the batteries.
- 3. Batteries may cause electric shock and have a high short-circuit $\,$ current.

Please take the precautionary measures specified below and any other measures necessary when working with batteries:

- remove wristwatches, rings and other metal objects
 - use only tools with insulated grips and handles.
- 4. When changing batteries, install the same number and same type of batteries.
- 5. Do not attempt to dispose of batteries by burning them. This could cause battery explosion.
- 6. Do not open or destroy batteries. Escaping electrolyte can cause injury to the skin and eyes.

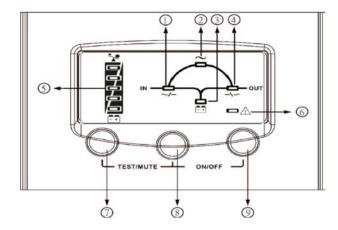
3.SYSTEM DESCRIPTION

3.1LCD Front Panel



- 1. LCD Display: This indicates the UPS operation information, including UPS status, input/output voltage, input/output frequency, battery voltage, battery capacity left, output load, inside temperature, and the times of history events.
- 2. LCD Select Up-key: It is pressed to select upward the UPS status on LCD Display.
- 3. LCD Select Down-key: It is pressed to select downward the UPS status on LCD Display.
- 4. Control Key: When this key is pressed with the LCD Select Down-key simultaneously for 3 seconds, the UPS will be switched on after two beeps. Similarly, when UPS is in operation press this key and the LCD Select Up-key for 3 seconds, the UPS will be switched off after two beeps. Beside, in battery operation mode, press both of this key and LCD Select Up-key at the same time to disable the buzzer.
- 5. Fault LED (red): To indicate the UPS is in fault condition because of inverter shutdown or over-temperature.
- 6. Warning LED (yellow): To indicate the UPS is in the status of overload, bypass and battery back-up.
- 7. Normal LED (green): To indicate the UPS is operating normally.

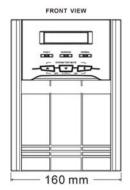
LED Front Panel

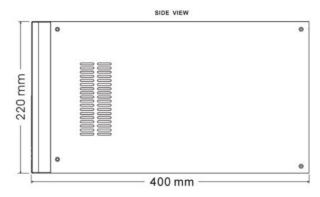


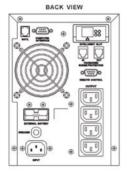
- 1. Line LED (green): AC power input •
- 2. Bypass LED (yellow):Bypass •
- 3. Battery LED (yellow):Battery back-up •
- 4. Inverter LED (green):Inverter Output •
- **5. Load and Battery Capacity LEDs:**When AC normal indicates the load level, when battery mode indicates the battery level •
- 6. \triangle LED(red):To indicate the UPS is in fault condition, please reset the UPS for checking again the UPS is operating normally \circ
- 7. TEST/MUTE Key: When AC normal, to push botton of ⑦ ® simultaneously for 3 seconds goes to battery mode for testing When battery mode, to push botton of ⑦ ®, simultaneously for 3 seconds goes to buzzer silent •
- 8. Control Key: To press the key of 7+8 or 7+9, operate according to the function •
- 9. On/Off Key: To press the key of \$ & \$ simultaneously for 3 seconds, the UPS will be switched on \circ Similarly, when UPS is in operation press this two key for 3 seconds, the UPS will be switched off \circ

3.2Outline Description

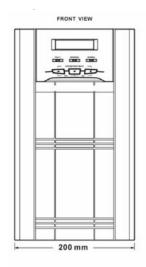
1KVA Tower Case

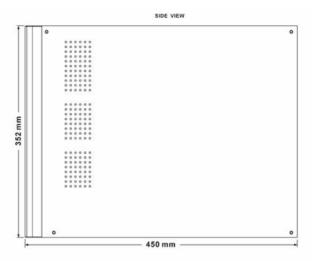


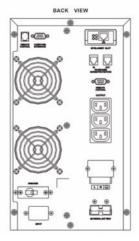




2KVA / 3KVA Tower Case



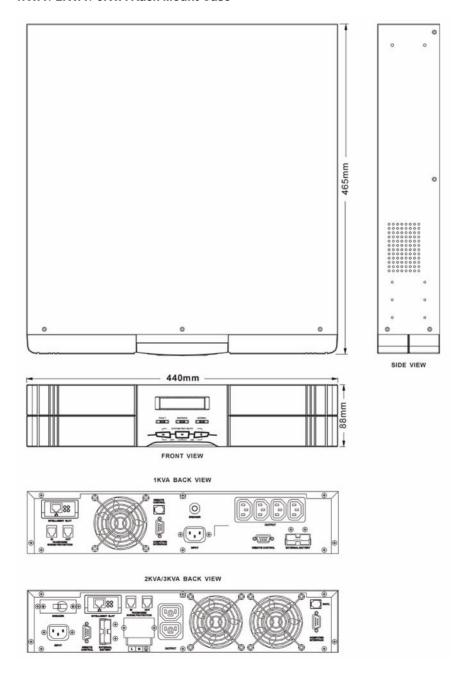




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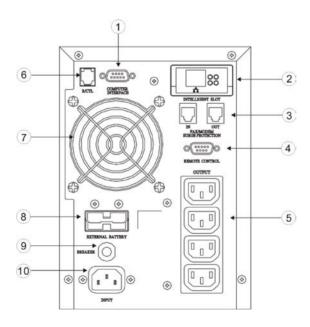
1KVA / 2KVA / 3KVA Rack Mount Case



3.3 Back View Description

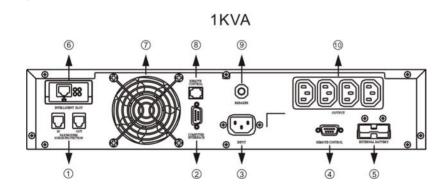
1KVA Tower Case

1. DB 9 (RS-232) Interface Port	6. Remote Control (Option for LED panel only)
2. SNMP Intelligent Slot (Option)	7. Fan
3. Fax / Modem (Surge Protection)	8. External Battery Socket
Remote Control (Detachable LCD Panel, Option)	9. Breaker
5. Output Socket (NEMA or IEC)	10. Input Socket



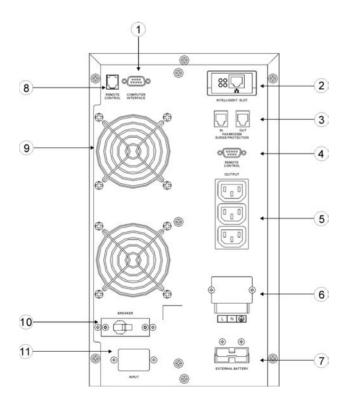
1KVA Rack Mount Case

1. Fax / Modem (Surge Protection)	6. SNMP Intelligent Slot (Option)
2. DB 9 (RS-232) Interface Port	7. Fan
3. Input Socket	8. Remote Control (Small LCD Panel, Option)
Remote Control (Detachable LCD Panel, Option)	9. Breaker
5. External Battery Socket	10. Output Socket (NEMA or IEC)



2KVA/3KVA Tower Case

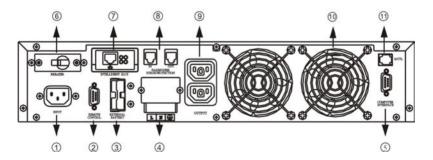
1. DB 9 (RS-232) Interface Port	7. External Battery Socket
2. SNMP Intelligent Slot (Option)	8. Remote Control (Detachable Mini LCD Panel, Option)
3. Fax / Modem (Surge Protection)	9. Fan
Remote Control (Detachable LCD Panel, Option)	10. Breaker
5. Output Socket (NEMA or IEC)	11. Input Terminal
6. Output Terminal	



2KVA/3KVA Rack Mount Case

1. Input Socket	7. SNMP Intelligent Slot (Option)
Remote Control (Detachable LCD Panel, Option)	8. Fax / Modem (Surge Protection)
3. External Battery Socket	9. Output Socket (NEMA or IEC)
4. Output Terminal	10. Fan
5. DB 9 (RS-232) Interface Port	11. Remote Control (Small LCD Panel, Option)
6. Breaker	

2KVA/3KVA



4.CABLE CONNECTION

4.1 Inspection

- 1. The system may be installed and wired only by qualified electricians in accordance with applicable safety regulations.
- 2. When installing the electrical wiring, please note the nominal amperage of your incoming feeder.
- 3. Inspect the packaging carton and its contents for damage. Please inform the transport agency immediately should you find signs of damage. Please keep the packaging in a safe place for future use.
- 4. Please ensure that the incoming feeder is isolated and secured to prevent it from being switched back on again.
- 4.2 Connection
- 1. UPS Input Connection

If the UPS is connected via the power cord, please use a proper socket with protection against electric current, and pay attention to the capacity of the socket.

2. UPS Output Connection

The output of this model is with socket-types only (NEMA or IEC). Simply plug the load power cord to the output sockets to complete connection.

5. OPERATION

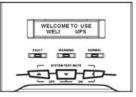
5.1 Check Prior to Start Up

- 1. Ensure the UPS is in a suitable positioning.
- 2. Check input cord is secured.
- 3. Make sure the load is disconnected or in the "OFF" position.
- 4. Check if input voltage meets the UPS rating required.

5.2 Operation Procedure

Please follow the instructions below for the UPS operation.

1. Once the AC source is connected, the LCD Display shall light up immediately to display first the main menu of greeting context and the Normal LED is blinking to indicate ready to switch on the inverter.



- 2. By pressing the Control Key and the LCD Select Down-key simultaneously for 3 seconds, the UPS will start up after two beeps and Normal LED lights up to indicate the power is from its inverter to the load.
- 3. When the Control Key and the LCD Select Up-key are pressed simultaneously for 3 seconds, the inverter will be turned off after two beeps and the UPS is on the standby status (LCD display illuminates and Normal LED is blinking) until AC source is disconnected.

5.3 Storage Instruction

Disconnect input power in rear panel if you will not use it for long period. If the UPS is stored over 3 months, please keep supplying power to the UPS for at least 24 hours to ensure battery fully recharged.

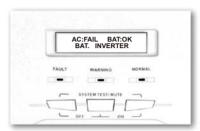
5.4 LCD Display

Use Up/Down key to select menu-displays of the LCD described below. This screen will refresh once the system power is enabled.

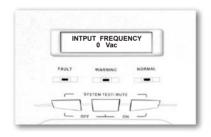
1. Rated Spec Menu

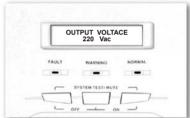


2. Status Menu

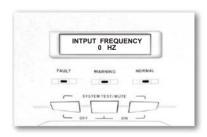


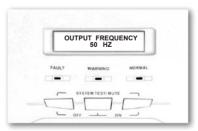
3. Voltage Menu



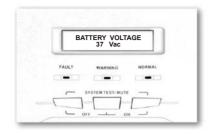


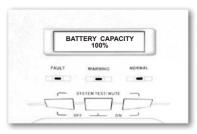
4. Frequency Menu



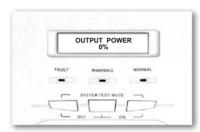


5.Battery Status Menu





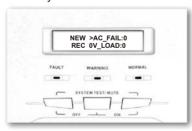
6.Output Power Menu



7. Temperature Menu



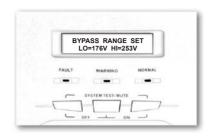
8. History Record Menu



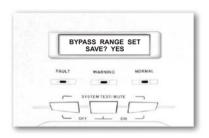


9. Bypass Range Set Menu

- A. To protect the load, the function of bypass auto-transfer is activated only when the AC main voltage is within the range of LO (low) and HI(high). In this screen, press on/off Control Key to enter the following steps for LO/HI voltage setting.
- B. The cursor (→) will pop up to indicate the item newly selected. Press on/off Control Key to get the item of LO or HI range the user want to adjust.
- C. Use Up or Down-key to adjust the voltage (changing 1V by every press). LO (low rang):176V+/- 20V, HI(high range):253V+/- 20V).
- D. Once the value is confirmed, press on/off Control Key again to save the data.







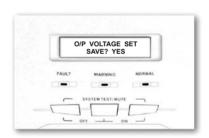
10.Output Voltage Set Menu

- A. In this screen, press on/off Control Key to enter the following steps for output voltage setting.
- B. The cursor (→) will pop up to indicate the output voltage newly selected.



- C. Use Up or Down-key to adjust the output voltage (220V, 230V, and 240V are available only).
- D. Once the correct voltage is selected, press on/off Control Key again to save the data.



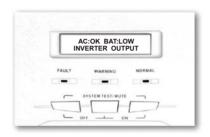


6. TROUBLE SHOOTING GUIDE

6.1 UPS Status and Action

The description of the following guideline may be helpful in problem solving.

1.LED and LCD status as below:



UPS STATUS:

AC utility power is normal. UPS is running normally, but battery capacity is low (referring to Battery Status Menu). Buzzer beeps once every second for battery low.

ACTION: Charger may broke down. Please replace charger board.

2.LED and LCD status as below:

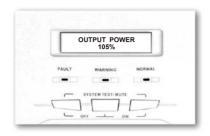


UPS STATUS:

AC utility power is normal. The output load is supplied through bypass of AC utility. Fault LED lits up and buzzer beeps continuously.

ACTION: Please contact your agent for service.

3.LED and LCD status as below:

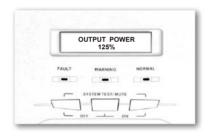


UPS STATUS:

AC utility power is normal but UPS is overloaded. Warning LED lits up and buzzer beeps per second.

ACTION: Please reduce the critical load to POWER(%)<100%.

4.LED and LCD status as below:



UPS STATUS:

AC utility power is normal but UPS is overloaded up to 125%. Warning LED does not fade out and buzzer beeps per 0.5 second.

ACTION:Please reduce the critical load to POWER(%)<100%.

5.LED and LCD status as below:



UPS STATUS:

AC utility power is normal, but the load is supplied by AC utility power via bypass. Output power is more than 150% (referring to the Output Power Menu). Warning LED lits up and buzzer beeps continuously.

ACTION: Please reduce the critical load to POWER(%)<100%.

6.LED and LCD status as below:



UPS STATUS:

AC utility power fails .The full load is supplied by battery power in UPS. Buzzer alarm sounds every 4 seconds.

ACTION: If AC utility power fails, reduce the less critical load in order to extend backup time. If it is not abnormal power failure, please check the rated input or connected line.

7.LED and LCD status as below:



UPS STATUS:

AC utility fails. The load is supplied by UPS in backup mode, and battery power is approaching low level. Buzzer alarm beeps every second.

ACTION: UPS will shut down automatically. Please save data soon.

8.LED and LCD status as below:



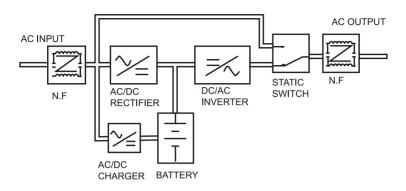
UPS STATUS:

AC utility power fails and battery runs out. UPS has shut down automatically.

ACTION: UPS will restart up when AC utility power is restored. If AC utility power failure is more than 6 hours, please follow storage instruction.

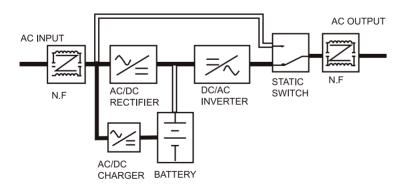
7. OPERATION MODES OF THE UPS

7.1 UPS System Block Diagram



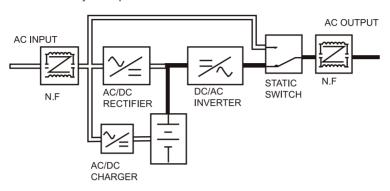
7.2 Normal Operation

There are two main loops when AC utility is normal: the AC loop and the battery charging loop. The AC output power comes from AC utility input and passes through AC/DC rectifier, DC/AC inverter and static switch to support power to load. The battery charging voltage comes from AC utility input and converted by AC/DC charger to support battery-charging power.



7.3 AC Utility Failure

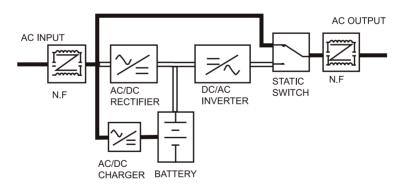
The AC output comes from battery, passing through DC/AC inverter and static switch within the battery backup time.



7.4 Bypass Enable

Under the following conditions, the bypass will be enabled:

- 1.Overload.
- 2.Inverter failure.
- 3.Over-temperature



8. COMPUTER INTERFACE

8.1 communication interface

The communication interface (DB9 port) on the back of the UPS may be connected to a host computer. The port provides two different modes for communicating with the computer like below.

1. Supply dry contact function (like RUPS of Megatec Company)

The port simulates relays closing to communicate with the computer. Its major functions are as follows.

- (1) To broadcast a warning when power fails.
- (2) To close any open files before the battery exhausted out.
- (3) To turn off the UPS.
- 2. Supply RS-232 for monitoring software (like **RUPSII** or **UPSiIon 2000** of Megatec Company)

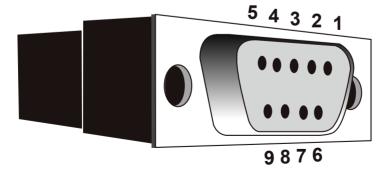
The UPS communicates with the computer by sending out RS-232 data streams to one of the serial ports. By this method the user is able to monitor the following parameters.

Innut Valtage	Indicates the present input voltage to the UPS
Input Voltage	system when AC power is present.
Output Voltage	Indicates the present output voltage of the UPS.
AC Frequency	Indicates the actual output frequency of the UPS.
Battery Voltage	Indicates the present DC voltage of the UPS battery.
Temperature	Indicates the actual temperature inside the UPS.

8.2 DB9 PIN Assignment

PIN 2: RS232 RXD PIN 3: RS232 TXD PIN 5: GND

The other PINs have no function.



DB9 INTERFACE CONNECTOR

9.SPECIFICATIONS (Tower Case)

Rated Power	Capacity	1KVA / 700W	2KVA / 1400W	3KV/ 2100W		
		Single phase 220Vac, 160~300Vac at 70~100% load				
Innut	Voltage	140~300Vac at 50~70	0% load, 118~300Vac	at 0~50% load		
Input	Frequency	50Hz or 60Hz +/- 4Hz				
	Power Factor	≥ 0.95	≥0.97			
	Voltage, Frequency	Single phase 220Vac +/- 2% (230V or 240V re-settable via				
		LCD panel), 50Hz or 60Hz +/-0.5% (Battery mode)				
	Transient Response		+/- 3% (100% load variation)			
Output	Waveform / Distortion	Sine wave, THD < 3%				
	Over Load Capacity	125~150% 30sec, the	n switch to bypass ar	nd auto re-transfer;		
	. ,	>150% for 200ms				
	Crest Ratio	3:1	1			
	Voltage (longer					
	backup time is	7Ah / 12V * 3pcs	7Ah / 12V * 8pcs			
Battery	available upon					
	request)	E . 000/		Postorio		
	Recharge Time	5 hrs to 90% of full ca	pacity after full load of	lischarge		
Bypass	Automatic: Overload and I					
,	By setting: Voltage Range			anel)		
Transfer Time	AC fail 0 ms; 2.5ms typica					
	Battery Mode	Beeping every 4 seconds (re-settable) and per second when				
Audible Alarm	,	battery low				
	Overload	> 125% Beeping twice per second				
	Fault	Beep Continuously	voltage 0 fraguence: F	Pottony voltogo		
	LCD	UPS status, I/P&O/P voltage& frequency, Battery voltage,				
Indicator		Battery capacity, Loading %, Temperature, History record				
	LED	Normal (green), Warning (yellow), Fault (red) LED				
	DB9 Connector	RS-232 Interface; Pov				
Communications	SNMP Intelligent Slot	For Net Agent II / Mini	(Option) with SNMP	manager and Web		
	ONIVIE IIIGIIIGEIII OIUL	browser				
Network	Surge Protection	RJ11 I/O port available for 10 base-T network				
IAGIMOLK	ourge i rotection	or Fax / Modem				
	Temperature	0-40 degree C; 32-104 degree F				
Environment	Relative Humidity	0-95% non-condensin				
	Acoustic Noise (at 1 M)	< 45 dBA	< 50 dBA			
	Net Weight (w/o batt.)	6.5 kgs	13.5 kgs	14.5 kgs		
1	ivet vveight (w/o batt.)	0.0 1190				
Physical	Net Weight (w/ batt.)	15 kgs	34 kgs	35 kgs		

9.SPECIFICATIONS (Tower Case)

Rated Power	Capacity	1KVA / 700W	2KVA / 1400W	3KVA / 2100W	
	Valtage	80-143vac(100%load).65-80vac(70% load),			
Input	Voltage	<65vac(<70% load)			
IIIput	Frequency	50Hz or 60Hz +/- 4	Hz		
	Power Factor	≥0.95 ≥0.97			
	Valtaga Fraguenay	115Vac +/- 2% (115V or 120V re-settable via LCD panel),			
	Voltage, Frequency	50Hz or 60Hz +/-0.5% (Battery mode)			
	Transient Response	+/- 3% (100% load			
Output	Waveform / Distortion	Sine wave, THD <	3% at 0-100% linear lo	oad	
	0 1 10 "	125~150% 30sec, t	then switch to bypass	and auto re-transfer;	
	Over Load Capacity	>150% for 200ms			
	Crest Ratio	3:1			
	Voltage (longer backup time is				
Battery	available upon request)	7Ah / 12V * 3pcs	7Ah / 12V * 8pcs		
	Recharge Time	5 hrs to 90% of full	capacity after full load	discharge	
	Automatic: Overload and UPS		oapaony anor ran road	disoriargo	
Bypass	By setting: Voltage Range 176		settable via LCD panel)	
Transfer Time	AC fail 0 ms; 2.5ms typical from	` ' '			
	Battery Mode		econds (re-settable) a	nd per second when	
		battery low			
Audible Alarm	Overload	> 125% Beeping twice per second			
	Fault	Beep Continuously			
	1 duit		D/P voltage& frequen	cv Battery voltage	
	LCD				
Indicator		Battery capacity, Lo	city, Loading %, Temperature, History record		
	LED	Normal (green), Warning (yellow), Fault (red) LED			
	DB9 Connector	RS-232 Interface: F	Power monitoring softv	vare (Ontion)	
Communications			lini (Option) with SNM		
Communications	SNMP Intelligent Slot				
		browser R I11 I/O nort availa	ahle for 10 hase_T net	work	
Network	Surge Protection	RJ11 I/O port available for 10 base-T network			
	T	or Fax / Modem			
Facility and the state of	Temperature	0-40 degree C; 32-104 degree F			
Environment	Relative Humidity	0-95% non-conden			
	Acoustic Noise (at 1 M)	< 45 dBA	< 50 dBA	44.51	
	Net Weight (w/o batt.)	6.5 kgs	13.5 kgs	14.5 kgs	
Physical	Net Weight (w/ batt.)	15 kgs	34 kgs	35 kgs	
	Dimension (WxHxD)mm	160x220x400	200x352x450	200x352x450	

 $[\]ensuremath{\,\%\,}$ Specifications are subject to change without notice.

10.SPECIFICATIONS (Rack Mount Case)

Rated Power	Capacity	1KVA / 700W	2KVA / 1400W	3KVA / 2100W
	-	Single phase 220Vac, 160~300Vac at 70~100%		
	Voltage	140~300Vac at 5	0~70% load, 118~3	300Vac at 0~50%
Input		load		
	Frequency	50Hz or 60Hz	+/- 4Hz	
	Power Factor	≧ 0.95	≧ 0.97	
		Single phase 220Vac +/- 2% (230V or 240V		
	Voltage, Frequency	re-settable via LCD panel), 50Hz or 60Hz		
		+/-0.5% (Battery mode)		
O. 14m. 14	Transient Response	+/- 3% (100%	load variation)	
Output	Waveform / Distortion	Sine wave, TH	D < 3% at 0-100	% linear load
	Over Load Consoity	125~150% 309	sec, then switch	to bypass and
	Over Load Capacity	auto re-transfe	r; >150% for 200	Oms
	Crest Ratio	3:1		
	Voltage (longer backup			
Battery	time is available upon	7Ah/12V* 3pcs	7Ah / 12V * 8p	CS
Dallery	request)			
	Recharge Time	5 hrs to 90% of full	capacity after full loa	ad discharge
Dynaga.	Automatic: Overload and UPS failure			
Bypass	By setting: Voltage Range 17	76V~ 253V+/-20V (re	e-settable via LCD pa	anel)
Transfer	AC fail 0 ms; 2.5ms typical from inverter to bypass and vice versa			
Time		Reening every	/ 4 seconds (re-	-settable) and
Audible	Battery Mode	Beeping every 4 seconds (re-settable) and per second when battery low		
Alarm	Overload		ng twice per sec	ond
7 ((01111	Fault	Beep Continuo	<u> </u>	
			/P voltage& frequenc	v. Battery voltage.
	LCD	Battery capacity, Loading %, Temperature, History record		
Indicator		Normal (green), Warning (yellow), Fault (red) LED		
	LED			Fault (red) LED
	DB9 Connector	RS-232 Interface; Power monitoring software (Option)		
Communications	CNIMD Intelligent Clat	For Net Agent II / Mini (Ontion) with SNMD		
	SNMP Intelligent Slot	manager and Web browser		
Network	Surge Protection		le for 10 base-T networ	kor Fax / Modem
	Temperature		; 32-104 degree	
Environment	Relative Humidity	0-95% non-condensing		
	Acoustic Noise (at 1 M)	<45 dBA	<50 dBA	
	Net Weight (w/o			
Dharical	batt.)	8.0 kgs	9.5 kgs	10.5 kgs
Physical	Net Weight (w/ batt.)	15.5 kgs	N/A	N/A
	Dimension (WxHxD)mm			
	, ,			

10.SPECIFICATIONS (Rack Mount Case)

Rated Power		Canacity			2K/W / 2400/W
Notage	Rated Power	Capacity			
Frequency		Voltage			
Power Factor ≥ 0.95 ≥ 0.97	Input	Frequency			
Voltage, Frequency				1	
Output Transient Response		Fower Factor			ro cottable via
Dutput		Voltago Eroguenev			
Transient Response		voltage, i requelley			
Waveform / Distortion Sine wave, THD < 3% at 0-100% linear load 125~150% 30sec, then switch to bypass and auto re-transfer; >150% for 200ms 3 : 1		Transient Response		oad variation)	
Over Load Capacity	Output				6 linear load
Battery Crest Ratio Voltage (longer backup time is available upon request) 7Ah / 12V * 3pcs 7Ah / 12V * 8pcs 7Ah / 12V * 10Ad		Over Lead Consoity			
Battery TAh / 12V * 3pcs TAh / 12V * 8pcs TAh / 12V * 3pcs TAh / 12V * 8pcs TAh / 12V * 3pcs TAh / 12V * 8pcs TAH / 12V * 3pcs TAH / 12V * 8pcs TAH / 12V * 3pcs TAH / 12V * 8pcs TAH / 12V * 3pcs TAH / 12V * 8pcs TAH / 12V * 3pcs TAH / 12V *		Over Load Capacity	auto re-transfer	; >150% for 200r	ms
time is available upon request) Recharge Time Bypass Automatic: Overload and UPS failure By setting: Voltage Range 176V~ 253V+/-20V (re-settable via LCD panel) Transfer Time Ac fail 0 ms; 2.5ms typical from inverter to bypass and vice versa Battery Mode Audible Alarm Audible Alarm Audible Alarm Audible Alarm Battery Mode Overload Fault Beeping every 4 seconds (re-settable) and persecond when battery low Overload Fault Beep Continuously UPS status, I/P&O/P voltage& frequency, Battery voltage, Battery capacity, Loading %, Temperature, History record Normal (green), Warning (yellow), Fault (red) LED Normal (green), Warning (yellow), Fault (red) LED RS-232 Interface; Power monitoring software (Option) For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem Temperature Environment Relative Humidity Acoustic Noise (at 1 M) Net Weight (w/o batt.) Shr Ah / 12V * 8pcs FAh / 12V * 10 Add in Lich			3:1		
Battery Speak Tamperature Temperature Temperature			7Δh / 12\/ *		
Recharge Time Bypass Automatic: Overload and UPS failure By setting: Voltage Range 176V~ 253V+/-20V (re-settable via LCD panel) Transfer Time AC fail 0 ms; 2.5ms typical from inverter to bypass and vice versa Beeping every 4 seconds (re-settable) and per second when battery low Overload Fault Beep Continuously UPS status, I/P&O/P voltage& frequency, Battery voltage, Battery capacity, Loading %, Temperature, History record LED Normal (green), Warning (yellow), Fault (red) LED RS-232 Interface; Power monitoring software (Option) SNMP Intelligent Slot Network Surge Protection Temperature For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem Temperature Environment Relative Humidity O-95% non-condensing Acoustic Noise (at 1 M) Net Weight (w/o batt.) Net Weight (w/o batt.) Net Weight (w/b batt.) Net Weight (w/b batt.) Some protection of full capacity after full load discharge Story -250V+/-20V (re-settable) and CPD panel) Tenperature to bypass and vice versa Beeping every 4 seconds (re-settable) and per second when battery low Peeping every 4 seconds (re-settable) and per second when battery low Peeping every 4 seconds (re-settable) and per second when battery low Peeping every 4 seconds (re-settable) and per second when battery low Peeping every 4 seconds (re-settable) and per second when battery low Peeping every 4 seconds (re-settable) and per second when battery low Peeping every 4 seconds (re-settable) and per second when battery low Peeping every 4 seconds (re-settable) and per second when battery low Peeping every 4 seconds (re-settable) and per second when battery low Peeping every 4 seconds (re-settable) and per second when battery low Peeping every 4 seconds (re-settable) and per second when battery low Peeping every 4 seconds (re-settable) and per second when battery low Peeping every 4 seconds (re-settable) and per second when battery low Peeping every 4 seconds (re-settable) and per sec		time is available upon		7Ah / 12V * 8pc	S
Bypass Automatic: Overload and UPS failure	Battery	request)	·		
Bypass Automatic: Overload and UPS failure		Recharge Time		of full capacity	after full load
By setting: Voltage Range 176V~ 253V+/-20V (re-settable via LCD panel) Transfer Time AC fail 0 ms; 2.5ms typical from inverter to bypass and vice versa Battery Mode Beeping every 4 seconds (re-settable) and per second when battery low Overload > 125% Beeping twice per second Fault Beep Continuously UPS status, I/P&O/P voltage& frequency, Battery voltage, Battery capacity, Loading %, Temperature, History record LED Normal (green), Warning (yellow), Fault (red) LED RS-232 Interface; Power monitoring software (Option) SNMP Intelligent Slot For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem Temperature 0-40 degree C; 32-104 degree F Environment Relative Humidity 0-95% non-condensing Acoustic Noise (at 1 M) <45 dBA <50 dBA Net Weight (w/o batt.) 8.0 kgs 9.5 kgs 10.5 kgs Physical			discharge		
Transfer Time AC fail 0 ms; 2.5ms typical from inverter to bypass and vice versa Battery Mode Beeping every 4 seconds (re-settable) and per second when battery low Overload > 125% Beeping twice per second Fault Beep Continuously UPS status, I/P&O/P voltage& frequency, Battery voltage, Battery capacity, Loading %, Temperature, History record Normal (green), Warning (yellow), Fault (red) LED RS-232 Interface; Power monitoring software (Option) SNMP Intelligent Slot Network Surge Protection Temperature O-40 degree C; 32-104 degree F Relative Humidity O-95% non-condensing Acoustic Noise (at 1 M) Acoustic Wolden Acoustic Noise (at 1 M) Acoustic Noise (at 1 M) Acoustic Noise (wold be acoustic Noise (wold be acoustic Noise) Replace AC fail 0 ms; 2.5ms typical from inverter to bypass and vice versa Beeping every 4 seconds (re-settable) and per second when battery low Second when battery low > 125% Beeping twice per second PROTECTION PROTECTION RS-232 Interface; Power monitoring software (Option) For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem Temperature O-40 degree C; 32-104 degree F Relative Humidity Acoustic Noise (at 1 M) Acoustic Noise (w/o batt.) B.0 kgs 9.5 kgs 10.5 kgs Physical	Bypass				
Audible Alarm Overload					
Audible Alarm Overload Fault Beep Continuously UPS status, I/P&O/P voltage& frequency, Battery voltage, Battery capacity, Loading %, Temperature, History record LED DB9 Connector Communications Network Network Temperature Surge Protection Temperature Relative Humidity Acoustic Noise (at 1 M) Physical Audible Alarm Second when battery low Second Second When S	Transfer Time	AC fail 0 ms; 2.5ms typica			
Audible Alarm Overload Fault Beep Continuously UPS status, I/P&O/P voltage& frequency, Battery voltage, Battery capacity, Loading %, Temperature, History record Normal (green), Warning (yellow), Fault (red) LED DB9 Connector Communications Network Surge Protection Temperature For Net Agent II / Mini (Option) with SNMP manager and Web browser RJJ11 I/O port available for 10 base-T network or Fax / Modem Temperature Penvironment Relative Humidity Acoustic Noise (at 1 M) Acoustic Noise (at 1 M) Net Weight (w/o batt.) Physical Overload Septimizer second NP&O/P voltage& frequency, Battery voltage, Battery capacity, Loading %, Temperature, History record Normal (green), Warning (yellow), Fault (red) LED RS-232 Interface; Power monitoring software (Option) For Net Agent II / Mini (Option) with SNMP manager and Web browser RJJ11 I/O port available for 10 base-T network or Fax / Modem 1 Environment Relative Humidity O-95% non-condensing Acoustic Noise (at 1 M) Acoustic N		Battery Mode			
Fault Beep Continuously UPS status, I/P&O/P voltage& frequency, Battery voltage, Battery capacity, Loading %, Temperature, History record Normal (green), Warning (yellow), Fault (red) LED DB9 Connector Communications Network Surge Protection Temperature Temperature For Net Agent II / Mini (Option) with SNMP manager and Web browser RJJ11 I/O port available for 10 base-T network or Fax / Modem Temperature Penvironment Relative Humidity Acoustic Noise (at 1 M) Net Weight (w/o batt.) Network Physical Physical For Net Agent II / Mini (Option) with SNMP manager and Web browser RJJ11 I/O port available for 10 base-T network or Fax / Modem 1 -40 degree C; 32-104 degree F Relative Humidity -95% non-condensing -45 dBA -50 dBA	Audible Alarm	Overload			
Indicator LCD Battery voltage, Battery capacity, Loading %, Temperature, History record LED Normal (green), Warning (yellow), Fault (red) LED RS-232 Interface; Power monitoring software (Option) SNMP Intelligent Slot Network Surge Protection Temperature For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem Temperature Penvironment Relative Humidity Acoustic Noise (at 1 M) Net Weight (w/o batt.) Surge Protection For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem O-40 degree C; 32-104 degree F Relative Humidity Acoustic Noise (at 1 M) Acoustic Noise (at 1 M) Net Weight (w/o batt.)					
Indicator LED Battery voltage, Battery capacity, Loading %, Temperature, History record Normal (green), Warning (yellow), Fault (red) LED RS-232 Interface; Power monitoring software (Option) SNMP Intelligent Slot Rot Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem Temperature Provironment Relative Humidity Acoustic Noise (at 1 M) Relative Humidity Acoustic Noise (at 1 M) Relative Humidity Acoustic Noise (at 1 M) Net Weight (w/o batt.) Rot Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem 1 Environment Relative Humidity Acoustic Noise (at 1 M) Acoustic Noise (at 1 M) Relative Humidity Acoustic Nois		Fauit			e& frequency
Indicator LED DB9 Connector Communications Network Temperature, History record Normal (green), Warning (yellow), Fault (red) LED RS-232 Interface; Power monitoring software (Option) For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem Temperature Provironment Relative Humidity Acoustic Noise (at 1 M) Net Weight (w/o batt.) Physical Temperature, History record Normal (green), Warning (yellow), Fault (red) LED RS-232 Interface; Power monitoring software (Option) For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem 1 Environment Acoustic Noise (at 1 M) Acoustic Noise (at 1 M) Acoustic Noise (at 1 M) Net Weight (w/o batt.) RS-232 Interface; Power monitoring software (Option) For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem 1 Environment Relative Humidity Acoustic Noise (at 1 M) Acoustic Noise (at 1 M) Acoustic Noise (at 1 M) Net Weight (w/o batt.) RS-232 Interface; Power monitoring software (Option) For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem 1 Environment Relative Humidity Acoustic Noise (at 1 M) Acoustic Noise (at 1 M) Net Weight (w/o batt.) RS-232 Interface; Power monitoring software (Option)		ICD			
LED Normal (green), Warning (yellow), Fault (red) LED RS-232 Interface; Power monitoring software (Option) SNMP Intelligent Slot Network Surge Protection Temperature Environment Relative Humidity Acoustic Noise (at 1 M) Net Weight (w/o batt.) Normal (green), Warning (yellow), Fault (red) LED RS-232 Interface; Power monitoring software (Option) For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem 0-40 degree C; 32-104 degree F Relative Humidity Acoustic Noise (at 1 M) V45 dBA V50 dBA Net Weight (w/o batt.)	Indicator	LOD			
Communications DB9 Connector Communications Network Surge Protection Temperature Environment Relative Humidity Acoustic Noise (at 1 M) Net Weight (w/o batt.) Physical DB9 Connector RS-232 Interface; Power monitoring software (Option) For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem 0-40 degree C; 32-104 degree F Relative Humidity 0-95% non-condensing Acoustic Noise (at 1 M) V45 dBA V50 dBA Net Weight (w/o batt.) RS-232 Interface; Power monitoring software (Option) For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem V-45 dBA V50 dBA Net Weight (w/o batt.) Net Weight (w/o batt.) Solve Sign Sign Sign Sign Sign Sign Sign Sign	Indicator		Normal (green) Warning (vellow) Fault (red)		
Communications DB9 Connector RS-232 Interface; Power monitoring software (Option) For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem Temperature Provironment Relative Humidity Acoustic Noise (at 1 M) RS-232 Interface; Power monitoring software (Option) For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem Temperature 0-40 degree C; 32-104 degree F Relative Humidity Acoustic Noise (at 1 M) Acoustic Noise (at 1 M) Net Weight (w/o batt.) RS-232 Interface; Power monitoring software (Option) For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem Temperature 4-45 dBA Solution Acoustic Noise (at 1 M) Net Weight (w/o batt.) RS-232 Interface; Power monitoring software (Option) For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem Temperature 8-45 dBA Solution Net Weight (w/o batt.) Solution 10-55 kgs N/A N/A		LED			
Communications SNMP Intelligent Slot				ice: Power moni	itoring software
Network Surge Protection Temperature Relative Humidity Acoustic Noise (at 1 M) Net Weight (w/o batt.) Physical SNMP Intelligent Slot For Net Agent II / Mini (Option) with SNMP manager and Web browser RJ11 I/O port available for 10 base-T network or Fax / Modem 0-40 degree C; 32-104 degree F Relative Humidity 0-95% non-condensing 450 dBA 80 kgs 9.5 kgs 10.5 kgs N/A	0	DB9 Connector			J
Network Surge Protection RJ11 I/O port available for 10 base-T network or Fax / Modem	Communications	CNIMD Intelligent Clet	For Net Agent	t II / Mini (Optio	on) with SNMP
Network Surge Protection or Fax / Modem		Sinivip intelligent Slot	manager and Web browser		
Temperature	Notwork	Curso Drotoction	RJ11 I/O port a	vailable for 10 ba	se-T network
Environment Relative Humidity 0-95% non-condensing Acoustic Noise (at 1 M) <45 dBA	Network	Surge Protection	or Fax / Modem		
Acoustic Noise (at 1 M) <45 dBA		Temperature			
Acoustic Noise (at 1 M) <45 dBA	Environment	Relative Humidity			
Physical Net Weight (w/ batt.) 15.5 kgs N/A N/A		Acoustic Noise (at 1 M)			
Physical Net Weight (w/ batt.) 15.5 kgs N/A N/A		Net Weight (w/o batt.)	8.0 kgs	9.5 kgs	10.5 kgs
• , , , ,	Physical	Net Weight (w/ batt.)		_	
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^{*}Specifications are subject to change without notice.